

REMARKS

I. Overview

Applicants hereby resubmit their Request for Interference between the '819 application and the '196 and '820 patents to formally comply with the new procedural rules, *i.e.*, 37 C.F.R. § 41.200 *et seq.*, and to address newly added claims 66-68. To facilitate consideration of this request, Applicants attach a proposed PTO-850 "Interference Initial Memorandum" outlining the suggested interference.

On September 24, 2004, Applicants filed a Request For Interference under 37 C.F.R. § 1.607, requesting the Patent Office to declare an interference between the '819 application and the '196 and '820 patents. The September 24, 2004, submission fully complied with the procedural and substantive requirements of 37 C.F.R. §§ 1.607 and 1.608. However, the provisions of 37 C.F.R. § 41.100 *et seq.* now govern all contested cases before the Board. Interference proceedings are further governed by the provisions of 37 C.F.R. § 41.200 *et seq.*

Concurrent with the submission of this paper, Applicants are filing an amendment to the '819 application, adding claims 66-68.

Applicants hereby notify the Examiner that the assignee of this application (AFFYMETRIX, INC.) has separately suggested an interference between U.S. Application No. 10/828,613 ("the '613 application") and the '196 and '820 patents. Each request for interference addresses the claims of the respective application relative to the claims of the Yakhini '196 and Yakhini '820 patents. Applicants suggest that the Board declare a single interference involving both Affymetrix applications (the present application and the '613 application) and the Yakhini '196 and Yakhini '820 patents.

II. 37 C.F.R. § 41.202

37 C.F.R. § 41.202 requires a suggestion for interference to:

- (1) Provide sufficient information to identify the application or patent with which the applicant seeks an interference,
- (2) Identify all claims the applicant believes interfere, propose one or more Counts, and show how the claims correspond to one or more Counts,
- (3) For each Count, provide a claim chart comparing at least one claim of each party corresponding to the Count and show why the claims interfere within the meaning of § 41.203(a),
- (4) Explain in detail why the applicant will prevail on priority,
- (5) If a claim has been added or amended to provoke an interference, provide a claim chart showing the written description for each claim in the applicant's specification, and
- (6) For each constructive reduction to practice for which the applicant wishes to be accorded benefit, provide a chart showing where the disclosure provides a constructive reduction to practice within the scope of the interfering subject matter.

III. 37 C.F.R. § 41.202(a)(1) - Identification of Patent

Applicants seek an interference with U.S. Patent Nos. 6,591,196 ("the '196 patent") and 6,768,820 ("the '820 patent"), issued to Yakhini *et al.* on July 8, 2003 and July 27, 2004, respectively.

IV. 37 C.F.R. § 41.202(a)(2) – Identification of Interfering Claims, Proposed Count(s), and Claims Correspondence

A. Interfering Claims

37 C.F.R. § 41.203(a) provides as follows:

An interference exists if the subject matter of a claim of one party would, if prior art, have anticipated or rendered obvious the subject matter of a claim of the opposing party and vice versa.

Applicants' claims 46 and 59 are identical to the '196 patent claims 1 and 14, respectively. Applicants' claim 64 is identical to the '820 patent claim 1. Applicants' claims 66 and 67 recite substantially the same terms as the '196 patent claims 1 and 14, respectively. Applicants' claim 68 recites substantially the same terms as the '820 patent claim 1. Therefore, these claims are believed to "interfere" within the meaning of § 41.203(a). The claim chart provided in Appendix A compares these claims (with any differences in terms highlighted in bold) as required under 37 C.F.R. § 41.202(a)(3).

B. Proposed Count

For the purpose of the suggested interference, Applicants propose a single Count defined as follows:

Claim 1 of the '196 patent or Applicants' Claim 46 or 66

or

Claim 14 of the '196 patent or Applicants' Claim 59 or 67

or

Claim 1 of the '820 patent or Applicants' Claim 64 or 68

C. Correspondence of Claims to Proposed Count

Under the provisions of 37 C.F.R. § 41.207(b)(2), a claim corresponds to a Count when the subject matter of the Count, if prior art, would have anticipated or rendered obvious the subject matter of the claim.

The claims of the parties that are believed to correspond to the proposed Count are as follows:

Yakhini *et al.* ('196 patent): Claims 1-18

Yakhini *et al.* ('820 patent): Claims 1-5

Applicants (Fiekowsky *et al.*): Claims 46-49, 59-61, and 64-68

Below, Applicants explain why the identified patent and application claims should be designated as corresponding to the proposed Count.

1. Designation of Yakhini '196 Claims 1-18

In accordance with 37 C.F.R. §§ 41.202(a)(2) and 207(b)(2), the '196 patent claims 1 through 18 should be designated as corresponding to the proposed Count because each claim would have been anticipated or rendered obvious over the proposed Count, treating the proposed Count as prior art to these claims.

Claim 1. Claim 1 of the '196 patent is specifically recited in the definition of the proposed Count. Therefore, claim 1 would have been anticipated by the proposed Count and should be designated as corresponding thereto.

Claim 2. Claim 2 depends from claim 1 and further defines data signals emanating from discrete positions on the surface of the molecular array (*i.e.*, fluorescent emission from fluorophores, radiation emitted by isotopes, and light emission from chemiluminescent moieties). Fluorescent and radiographic labeling techniques are disclosed in U.S. Patent No. 6,090,555

("the '555 patent"), which has an effective filing date of December 11, 1997, and issued on July 18, 2000, to Fiekowsky *et al.* See, e.g., column 2, lines 33-46; column 4, lines 18-23; column 5, lines 5-22; and column 7, lines 1-17 of the '555 patent. The '555 patent is a prior art reference against the '196 patent under 35 U.S.C. § 102(e). U.S. Patent No. 5,631,734 ("the '734 patent"), which issued May 20, 1997, to Stern *et al.*, discloses fluorescent labels throughout the patent. See, e.g., Abstract; column 1, lines 56-57; column 2, lines 14-21; and column 4, lines 54-57 of the '734 patent. The '734 patent is a prior art reference against the '196 patent under 35 U.S.C. § 102(b). Radiographic labels are shown in U.S. Patent No. 5,143,854 ("the '854 patent"), which issued September 1, 1992, to Pirrung *et al.*, which was incorporated by reference at column 1, line 24 of the '734 patent. See, e.g., column 3, lines 45-47 and column 6, lines 34-40. Chemiluminescent labels for arrays are shown in U. S. Patent No. 5,800,992 ("the '992 patent"), issued September 1, 1998 to Fodor *et al.*, and its foreign equivalent WO 92/10588 (published June 25, 1992). See, e.g., column 51, lines 55-58. Therefore, claim 2 would have been obvious over the proposed Count in view of the '555, '734, '854, and '992 patents and should be designated as corresponding thereto.

Claim 3. Claim 3 depends from claim 1 and further specifies that each image of the number of images comprises an array of pixels, each pixel having a data signal intensity value. These features are disclosed in the '555 patent at column 5, lines 11-28; column 7, lines 11-42; and column 8, lines 33 to 58. These features are also described in the '734 patent at column 9, lines 19-37. Therefore, claim 3 would have been obvious over the proposed Count in view of the '555 and '734 patents and should be designated as corresponding thereto.

Claim 4. Claim 4 depends from claim 3 and further recites that the features of the molecular array are arranged in a rectilinear grid, corner features are selected as marker features

and estimating initial positions of selected marker features includes certain recited steps. Each of these features is disclosed in the '555 patent. *See, e.g.*, column 7, lines 8-63; column 8, line 20 to column 10, line 32. Additionally, U.S. Patent No. 6,349,144 ("the '144 patent"), which has an effective filing date of February 7, 1998, and issued on February 19, 2002, to Shams, shows the selection of an image region for grid placement by defining the four corners for grid placement either by user selection or by anchor features. *See, e.g.*, column 6, lines 7-14. The '144 patent is a prior art reference against the '196 patent under 35 U.S.C. § 102(e). The '144 patent also discloses employing row and column values in the computation of a direction vector (*See, e.g.*, column 7, lines 17-55), and shifting each grid point towards regions with the highest intensity values, *i.e.* "peaks" (column 6, lines 36-43). Therefore, claim 4 would have been obvious over the proposed Count in view of the '555 and '144 patents.

Claim 5. Claim 5 depends from claim 4 and further recites calculating the row and column vectors. These features are described in the '555 patent at column 8, line 20 to column 10, line 32. Moreover, the '144 patent at column 7, lines 17-55, illustrates an example calculation of the direction vector for a bounding box. The bounding box includes "n" columns and "m" rows where a direction vector "d" is calculated for the bounding box. Also, the '144 patent discloses at column 6, lines 36-43: "Since it is assumed that the pixel intensity corresponding to DNA spots images 10 in the image region 18 are greater than their surrounding background 50 intensity values, the computer 34, according to the above steps, automatically shifts each grid point 24 towards local regions with the highest intensity values in subsequent iterations of said steps, wherein each grid point's location in the image frame 12 is modified." Furthermore, the '734 patent provides an illustrative example of histograms based upon a measure of intensity that include peaks. *See, e.g.*, Figure 6A, where the histograms are analyzed

to identify the distinct peaks (steps 606 and 607, and column 16, lines 1-19). Therefore, claim 5 would have been obvious over the proposed Count in view of the ‘555, ‘144, and ‘734 patents.

Claim 6. Claim 6 depends from claim 3 and further recites calculating refined positions of the selected marker features within the image of the molecular array by blob analysis (binary large objects). Blob analysis was well known, prior to the filing date of the ‘196 patent, to be a standard method of calculating the positions of objects. *See*, U.S. Patent No. 6,289,382 (“the ‘382 patent”), which has an effective filing date of August 31, 1999, and issued on September 11, 2001, to Bowman-Amuah. *See, e.g.*, column 55, lines 30-35 of the ‘382 patent. The ‘382 patent is a prior art reference against the ‘196 patent under 35 U.S.C. § 102(e). *Also see*, U.S. Patent No. 5,917,588 (“the ‘588 patent”), which has an effective filing date of November 4, 1996, and issued on June 29, 1999, to Addiego. *See, e.g.*, column 9, lines 16-34 of the ‘588 patent. The ‘588 patent is a prior art reference against the ‘196 patent under 35 U.S.C. § 102(e). *See also*, U.S. Patent No. 5,845,007 (“the ‘007 patent”), which issued on December 1, 1998, to Ohashi *et al.* *See, e.g.*, column 1, line 63 to column 2, line 13 of the ‘007 patent. The ‘007 patent is a prior art reference against the ‘196 patent under 35 U.S.C. § 102(b). *See also*, U.S. Patent No. 5,825,913 (“the ‘913 patent”), which issued October 20, 1998, to Rostami *et al.* *See, e.g.*, column 6, lines 23-29 of the ‘913 patent. The ‘913 patent is a prior art reference against the ‘196 patent under 35 U.S.C. § 102(b). *See also*, U.S. Patent No. 5,371,690 (“the ‘690 patent”), which issued on December 6, 1994, to Engel *et al.* *See, e.g.*, column 7, lines 11-20; column 8, lines 9-20; column 14, lines 34-68; column 15, lines 42-52; and column 20, lines 20-39. The ‘690 patent is a prior art reference against the ‘196 patent under 35 U.S.C. § 102(b).

Therefore, claim 6 would have been obvious over the proposed Count in view of the ‘382, ‘588, ‘007, ‘913, and ‘690 patents.

Claim 7. Claim 7 depends from claim 6 and claims steps for generating the binary image and conducting the blob analysis. The steps for generating the binary image are obvious from conventional blob analysis, particularly in view of U.S. Patent No. 6,124,102 (“the ‘102 patent”), which has an effective filing date of April 21, 1998, and issued on September 26, 2000, to Fodor *et al.* See, for example, claims 1 and 16 of the ‘102 patent. The ‘102 patent is a prior art reference against the ‘196 patent under 35 U.S.C. § 102(e). The steps of claim 7 for generating the binary image were well known, prior to the filing date of the ‘196 patent, to be standard steps used in blob analysis. See also, the ‘382, ‘588, ‘007, ‘913, and ‘690 patents discussed for claim 6.

Therefore, claim 7 would have been obvious over the proposed Count in view of the ‘102, ‘382, ‘588, ‘007, ‘913, and ‘690 patents.

Claim 8. Claim 8 depends from claim 6 and also claims steps, including selecting different intensity bands for the pixels, for generating the binary image and conducting the blob analysis. The steps for generating the binary image are obvious from conventional blob analysis, particularly in view of the ‘102 patent. See, e.g., claims 1 and 16 of the ‘102 patent. The steps of claim 8 for generating the binary image were well known prior to the filing date of the ‘196 patent to be standard steps used in blob analysis. See also, the ‘382, ‘588, ‘007, ‘913, and ‘690 patents discussed for claim 6.

Therefore, claim 8 would have been obvious over the proposed Count in view of the ‘102, ‘382, ‘588, ‘007, ‘913, and ‘690 patents.

Claim 9. Claim 9 depends from claim 3 and generally claims that a blob analysis is conducted such that blobs of appropriate size and location are generated. The manner of conducting blob analysis recited in claim 9 was well known and obvious prior to the filing date

of the '196 patent. *See also*, the '382, '588, '007, '913, and '690 patents discussed for claim 6.

Therefore, claim 9 would have been obvious over the proposed Count in view of the '382, '588, '007, '913, and '690 patents.

Claim 10. Claim 10 depends from claim 9 and recites using blob analysis to refine positions of strong features by analyzing appropriate regions of the array. The manner of using and conducting blob analysis recited in claim 10 was well known and obvious prior to the filing date of the '196 patent. *See also*, the '382, '588, '007, '913, and '690 patents discussed for claim 6. *See also*, the '144 patent at column 11, lines 41-58, which describes displaying a plurality of DNA spot images and analyzing the background and signal intensity values for each DNA spot relating to the analyzed difference values.

Therefore, claim 10 would have been obvious over the proposed Count in view of the '382, '588, '007, '913, '690, and '144 patents.

Claim 11. Claim 11 depends from claim 3 and recites using linear regression analysis to produce refined features. This technique was a standard, well known and obvious analytical tool prior to the filing date of the '196 patent. *See*, the '382 patent at column 168, line 58 to column 169, line 10. *See also*, U.S. Patent No. 6,228,575 ("the '575 patent"), which has an effective filing date of May 15, 1996, and issued on May 8, 2001, to Gingeras *et al.*, at column 22, lines 22 to 34 and claim 21. *See also*, the reference book, "Matrix Computations" by Golub *et al.* ("the Golub reference"), cited at column 13, lines 47-51 of the '196 patent.

Therefore, claim 11 would have been obvious over the proposed Count in view of the '382 and '575 patents and the Golub reference.

Claim 12. Claim 12 depends from claim 11 and recites steps of the linear regression analysis. These steps were standard, well known and obvious prior to the filing date of the '196

patent. *See*, the '382 patent at column 168, line 58 to column 169, line 10. *See also*, the '575 patent at column 22, lines 22 to 34 and claim 21. *See also*, the Golub reference, cited at column 13, lines 47-51 of the '196 patent.

Therefore, claim 12 would have been obvious over the proposed Count in view of the '382 and '575 patents and the Golub reference.

Claim 13. Claim 13 depends from claim 1 and recites standard statistical methods and data processing techniques as applied to the array analysis. These methods and techniques were well known and obvious prior to the filing date of the '196 patent. In particular, prior to the filing date of the '196 patent, it would have been obvious to analyze data corresponding to weak and strong features and to determine which pixels are included in the extraction of signal from each feature or local background region using statistical methods for pixel outlier identification; determine averages and variances of data signal intensities for features of the molecular array and covariances for one or more pairs of data signal intensities; determine averages and variances for background data signal intensities; determine background-subtracted averages and variances of data signal intensities for features of the molecular array and background-subtracted covariances for one or more pairs of data signal intensities; normalize the data signal intensities, averages, and variances; and calculate ratios and variances of ratios of pairs of normalized data intensity signals. *See, e.g.*, U.S. Patent No. 5,858,659 ("the '659 patent"), which issued on January 12, 1999, to Sapolsky *et al.*, for disclosure on strong and weak features and background subtraction at column 8, line 60 to column 9, line 20. The '659 patent is a prior art reference against the '196 patent under 35 U.S.C. § 102(b).

See also, U.S. Patent No. 6,045,996 ("the '996 patent"), which has an effective filing date of October 26, 1993, and issued on April 4, 2000, to Cronin *et al.*, for disclosure on outlier

identification at column 9, lines 22-31. The '996 patent is a prior art reference against the '196 patent under 35 U.S.C. § 102(e).

See also, U.S. Patent No. 5,733,729 ("the '729 patent"), which issued to Lipshutz *et al.* on March 31, 1998, for disclosure of variances at column 9, line 65 to column 10, line 15. The '729 patent is a prior art reference against the '196 patent under 35 U.S.C. § 102(b).

Therefore, claim 13 would have been obvious over the proposed Count in view of the '659, '996, and '729 patents and should be designated as corresponding thereto.

Claim 14. Claim 14 is specifically recited in the definition of the proposed Count. Therefore, claim 14 would have been anticipated by the proposed Count and should be designated as corresponding thereto.

Claim 15. Claim 15 corresponds to the proposed Count for the same reasons that claim 2 corresponds to the proposed Count.

Claim 16. Claim 16 recites the system for performing the method of claim 14, which is recited in the definition of the proposed Count. Therefore, claim 16 would have been anticipated by the proposed Count and should be designated as corresponding thereto.

Claim 17. Claim 17 depends from claim 16 and recites multiple statistical methods and data processing techniques to apply to features in the array. These methods and techniques were well known and obvious prior to the filing date of the '196 patent. In particular, it would have been obvious to use a computer program to calculate background-subtracted averages, background-subtracted variances, and background-subtracted confidence intervals for data signal intensities integrated over features in the images corresponding to features of the molecular array. *See also*, the '659 patent for disclosure of variances at column 7, lines 9-19 and column 9, lines 32-42.

Therefore, claim 17 would have been obvious over the proposed Count in view of the '659 patent and should be designated as corresponding thereto.

Claim 18. Claim 18 depends from claim 16 and recites multiple statistical methods and data processing techniques to apply to features in the array. These methods and techniques were well known and obvious prior to the filing date of the '196 patent. In particular, it would have been obvious to use a computer program to calculate background-subtracted averages, background-subtracted variances, and background-subtracted confidence intervals for ratios of pairs of data signal intensities integrated over features in the images corresponding to features of the molecular array. *See also*, the '659 patent for disclosure of variances at column 7, lines 9-19 and column 9, lines 32-42.

Therefore, for the same reasons claim 13 would have been obvious over the proposed Count in view of the '659, '996, and '729 patents, claim 18 would have been obvious over the proposed Count and should be designated as corresponding thereto.

2. Designation of Yakhini '820 Claims 1-5

The Yakhini '820 patent claims 1 through 5 should be designated as corresponding to the proposed Count because each claim would have been anticipated or rendered obvious over the proposed Count, treating the proposed Count as prior art to these claims.

Claim 1. Claim 1 is specifically recited in the definition of the proposed Count. Therefore, claim 1 would have been anticipated by the proposed Count and should be designated as corresponding thereto.

Claim 2. Claim 2 depends from claim 1 and recites the features are arranged in a rectilinear grid and the pattern comprises a rectilinear grid of rows and columns; and this step comprises calculating row and column vectors by summing pixels. Claim 2 would have been

obvious over the proposed Count in view of the '144 patent. For example, the '144 patent shows examples of features disposed in grids of rows and columns in Figures 1, 2, 4-7 and column 5, lines 28-47. The '144 patent also shows summing up pixels in rows and columns in the mathematical formulae presented in column 7, lines 23-55, where there are pixel intensity values associated with "n" columns and "m" rows used in various computations to compute an average or weighted sum of vectors described in column 7, lines 2-22. Therefore, claim 2 would have been obvious over the proposed Count in view of the '144 patent and should be designated as corresponding thereto.

Claim 3. Claim 3 depends from claim 1 and recites obtaining information on the array layout using a code associated with the array, and constructing the second pattern based on the obtained array layout information. Claim 3 would have been obvious over the proposed Count in view of the patents described below. For example, the code may be a bar code. *See*, the '820 patent at column 27, line 44. Bar codes for arrays are described in U.S. Patent No. 5,945,334 ("the '334 patent"), which has an effective filing date of June 8, 1994, and issued on Aug. 31, 1999, to Besemer *et al.*, and its foreign equivalent, EP 695 941 ("EP '941"), published February 7, 1996. *See*, the '334 patent at column 6, lines 57-65, and EP '941 at page 5, paragraph 0028, column 7, lines 47-56. The '334 patent and EP '941 are prior art references against the '820 patent under 35 U.S.C. §§ 102(e) and (b), respectively. Therefore, claim 3 would have been obvious over the proposed Count in view of the '334 patent and EP '941 and should be designated as corresponding thereto.

Claim 4. Claim 4 depends from Claim 3 and recites that the array layout information is obtained from a remote location. Prior to the filing date of the '820 patent, it would have been obvious to store layout information in a remote location. For example, layout

information could have been obtained after synthesis and a special file could have been sent to the customer with the commercial array. Synthesis could have occurred at the manufacturing facility, which could have been in a separate room, building, or computer server relative to where a customer would have used the array. Therefore, claim 4 would have been obvious over the proposed Count and should be designated as corresponding thereto.

Claim 5. Claim 5 depends from claim 1 and specifies that the orientation comprises rotational orientation. Prior to the filing date of the '820 patent, it would have been recognized that rotational orientation is an obvious type of orientation of a 2-dimensional probe array positioned in a perpendicular plane to an incident light beam. *See, e.g.*, Figures 1A-1C of the '734 patent (with respect to substrate 230). Therefore, claim 5 would have been obvious over the proposed Count in view of the '734 patent and should be designated as corresponding thereto.

3. Designation of Applicants' Claims 46-49, 59-61, and 64-68

In accordance with 37 C.F.R. §§ 41.202(a)(2) and 207(b)(2), Applicants' claims 46-49, 59-61, and 64-68 should be designated as corresponding to the proposed Count. Claims 46, 59, 64, and 66-68 are alternatively expressly recited in the definition of the proposed Count and, therefore, are anticipated by the proposed Count. Moreover, Applicants' claims 46-49, 59-61, and 64-68 are the same or substantially the same as the '196 and '820 patent claims discussed above and, therefore, should be designated as corresponding to the proposed Count.

V. 37 C.F.R. §§ 41.202 (a)(4) and 41.202(d) – Applicant Will Prevail On Priority

Applicants' present application claims benefit through a series of continuation applications to an application filed on December 11, 1997, *i.e.*, USSN 60/069,032 ("the '032 application"). In the event an interference is declared that involves both of Affymetrix's '613 and '819 applications, Applicants would also be accorded benefit to an application filed on

February 10, 1994, *i.e.*, USSN 08/195,889 (“the ‘889 application”). The chart set forth in Appendix C shows that the ‘032 and ‘889 applications provide a constructive reduction to practice within the scope of the interfering subject matter.

In comparison, the earliest possible effective filing date to which the ‘196 and ‘820 patents may be accorded benefit appears to be June 6, 2000, *i.e.*, the filing date of USSN 09/589,046.

Therefore, Applicants have an effective filing date of about 2 ½ years (based on the filing date of the ‘032 application) prior to the earliest possible effective filing date of the ‘196 and ‘820 patents. Applicants may also be accorded benefit of the filing date of the ‘889 application, which is over 6 years earlier than the priority date of the ‘196 and ‘820 patents.

Therefore, Applicants will *prima facie* prevail on priority based on a constructive reduction to practice that precedes the earliest possible constructive reduction to practice that may be accorded to the ‘196 and ‘820 patents.

VI. 37 C.F.R. § 41.202(a)(5) – Written Description For Each Claim In The Applicant’s Specification

Applicants’ claims 46-49 and 59-61 were copied from the ‘196 patent. Applicants apply the terms of claims 46-49 and 59-61 (corresponding to ‘196 patent claims 1 through 4 and 14 through 16, respectively) to the disclosure of the present application in the table set forth in Appendix B.

Applicants’ claims 66 and 67 were substantially copied from the ‘196 patent. Applicants’ claims 66 and 67 are similar to Applicants’ claims 46 and 59, respectively. Support for newly added claims 66 and 67 can be found in the table set forth in Appendix B.

Applicants' claims 64 and 65 were copied from the '820 patent. Applicants apply the terms of claims 64 and 65 (corresponding to '820 patent claims 1 and 2, respectively) to the disclosure of the present application in the table set forth in Appendix B.

Applicants' claim 68 is similar to Applicants' claim 64. Support for newly added claim 68 can be found in the table set forth in Appendix B.

VII. 37 C.F.R. § 41.202(a)(6) – Applicants' Earliest Constructive Reduction To Practice

According to 37 C.F.R. § 41.201, a "constructive reduction to practice" means "a described and enabled anticipation under 35 U.S.C. § 102(g)(1) in a patent application of the subject matter of a count." Likewise, pursuant to 37 C.F.R. § 41.201, an "earliest constructive reduction to practice" means "the first constructive reduction to practice that has been continuously disclosed through a chain of patent applications including in the involved application or patent. For the chain to be continuous, each subsequent application must have been co-pending under 35 U.S.C. §§ 120 or 121 or timely filed under 35 U.S.C. §§ 119 or 365(a)."

In the table in Appendix C, Applicants show a constructive reduction to practice in both the '032 and '889 applications for Applicants' claims 46, 59, 64, and 66-68, which are alternatively recited as defining the proposed Count.

The '032 Application (Fiekowsky/Bartell). For the purpose of the requested interference, Applicants are entitled to the benefit of the '032 application, filed on December 11, 1997, which constitutes a constructive reduction to practice of an embodiment within the scope of the interfering subject matter, as reflected in Appendix C. A constructive reduction to practice of an embodiment within the scope of the interfering subject matter has been continuously disclosed from the earliest filed application, the '032 application, through a series of

applications, to the present application. Specifically, the present application is a continuation of U.S. Patent Application Serial No. 09/542,151, filed April 4, 2000, now U.S. Patent No. 6,611,767; which is a continuation of U.S. Patent Application Serial No. 08/996,737, filed December 23, 1997, now U.S. Patent No. 6,090,555; which in turn is a non-provisional of U.S. Patent Application Serial No. 60/069,032, filed December 11, 1997. Therefore, the '032 application is believed to constitute Applicants' earliest and continuously disclosed constructive reduction to practice of an embodiment within the scope of the proposed Count.

The '889 Application (Stern/Fiekowsky). For the purpose of the requested interference, wherein both of Affymetrix's '613 and '819 applications are involved, Applicants would be also entitled to the benefit of the '889 application, filed on February 10, 1994, which constitutes a constructive reduction to practice of an embodiment within the scope of the interfering subject matter, as reflected in Appendix C.

A constructive reduction to practice of an embodiment within the scope of the interfering subject matter has been continuously disclosed from the earliest filed application, the '889 application, to the '613 application. Therefore, the '613 application, filed on April 21, 2004, is a continuation of U.S. Patent Application No. 09/699,852 ("the '852 application"), filed on October 30, 2000, now U.S. Patent No. 6,741,344, which is a continuation of U.S. Patent Application Serial No. 08/823,824 ("the '824 application"), filed on March 25, 1997, now U.S. Patent No. 6,141,096, which is a continuation of U.S. Patent Application Serial No. 08/195,889, filed on February 10, 1994, now U.S. Patent No. 5,631,734. It is noted that on October 29, 2004, Applicants' Petition To Accept An Unintentionally Delayed Claim of Priority to claim priority under 35 U.S.C. § 120 of the '889, '824, and '852 applications was granted in the present application. Therefore, the present application is a continuation-in-part of the '852 application.

In the event the '613 application is included in the requested interference, it would constitute a constructive reduction to practice in an "involved" application. 37 C.F.R. § 41.201.

VIII. Conclusion

In view of the above, Applicants respectfully request the Examiner to advance this case to the Board of Patent Appeals and Interferences for the declaration of an interference between Applicants' present application and the '196 and '820 patents. Applicants respectfully request the Examiner to handle this matter on an expedited basis, taking into account the pending request for interference filed in the '613 application with respect to the '196 and '820 patents.

Applicants suggest that the Board declare a single interference involving the present application and the '613 application and the Yakhini '196 and '820 patents.

Respectfully submitted,
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Date: 10/14/05

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